DOCUMENT RESUME

ED 075 386 SP 006 349

AUTHOR Brown, Jeanette A.; MacDougall, Mary Ann
TITLE The Influence of Interpersonal Skill Training on the Social Climate of Elementary School Classrooms.
PUB DATE 1 Mar 73
NOTE 15p.; Paper presented at AERA Convention, New Orleans, Louisiana, March 1, 1973

EDRS PRICE MF-$0.65 HC-$3.29
DESCRIPTORS Behavior Change; *Classroom Environment; *Classroom Observation Techniques; *Elementary Education; Interaction Process Analysis; *Interpersonal Relationship; Peer Acceptance; Self Concept; *Student Teacher Relationship

ABSTRACT

This study investigated the interdependence of teacher and pupil behavior in the elementary school classroom. Phase I of the study provided teachers with opportunities to observe their own classroom behaviors and to learn how these behaviors influenced the classroom learning environment. A Self-Perceptions Index was used to measure the impact of this training. Phase II of the study investigated the impact of systematic social skill training on the affective perceptions of children with varying social and cultural backgrounds. The Self-Perceptions Index and a Peer Acceptance Index were used to measure the impact of this training. Results of phase I upheld the hypothesis that, given the opportunity to examine, discuss, and model behaviors, teachers would manifest behaviors which would increase the positive self-perceptions of their students. Results of Phase II showed that increased peer acceptance decreased the self-acceptance level of the students. (Two pages of references are included.) (BRB)

ED 075386

NFS
SP

THE INFLUENCE OF INTERPERSONAL SKILL TRAINING ON THE SOCIAL CLIMATE OF ELEMENTARY SCHOOL CLASSROOMS

by

Jeannette A. Brown
Mary Ann MacDougall

School of Education
University of Virginia

1973 AERA Convention
New Orleans, Louisiana
Program No. 36.10
March 1, 1973

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY

Jung Hotel
Presidential Room
2:15 - 3:45 P.M.

SP 006 749

INTRODUCTION

The interpersonal relationships between pupils, and between pupils and teachers, is critical to the social organization of elementary school classrooms. However, an examination of the understandings and behaviors which contribute to positive interpersonal relationships is commonly neglected in the professional preparation of teachers and in the formal education of pupils. This study proposed to systematically intervene on both populations with interpersonal skill training.

A basic assumption of the interpersonal skill training was that the quality of the classroom interactions is largely dependent on the socio-cultural understandings of the participants (Henry, 1959; Leacock, 1969; Rist, 1970). In the absence of such understandings, teachers may be employing classroom techniques which are inappropriate for the socio-cultural groups with which they are working. For example, the opinions of teachers concerning the learning ability of children were found to be based more in observed socio-cultural factors than in intellectual potential. Further, teachers' opinions were also found to be reflected in observable differential behaviors. (Brookover, 1965; Rist, 1970; Rosenthal and Jacobson, 1968).

Further, teachers isolated in self-contained classrooms are necessarily denied opportunities for feedback regarding the effectiveness of their classroom interactions. They are unable to observe the techniques utilized by their peers as a measure against which to assess themselves. In addition, the low visibility which is characteristic of elementary school classrooms generally precludes opportunities for any systematic and meaningful outside evaluation (Cohen, 1972; Miles, 1967).

Another dimension of effective classroom learning environments is pupil-pupil interactions as they relate to the informal classroom social structure (Cohen 1972).

Children from varying cultural and socio-economic backgrounds are expected to learn, at one and the same time, the necessary acceptable social skills and the required cognitive behaviors. This expectation is held despite the fact that the former may be a prerequisite to the latter.

In addition, those children whose behavior is unacceptable to the prevailing group norm must somehow learn

acceptable behavior. These learnings can occur either systematically or through trial and error encounters. If the learning occurs through trial and error, the child's perceptions of his worth and his competence are modified, often with detrimental consequences for the child's educational experience.

Thus, at least part of the answer to the problem of effective classroom interactions may lie in providing both teachers and pupils with opportunities to learn how their behaviors influence the behavior of others. (Brown, 1972; Henry, 1959). For pupil behavior affects teacher behavior which in turn affects pupil learning. (Cohen, 1972). It was with this interdependence of these classroom interactions with which this study was concerned.

PROBLEM STATEMENT

Phase I of the study was designed to provide opportunities for teachers to examine their own classroom behaviors and to understand how these behaviors influence their classroom social climates. Phase II provided children with opportunities to explore the dynamics of classroom group life and learn the techniques of effective interaction. The impact of the two approaches was evaluated by observing changes in the affective perceptions of elementary school children.

PHASE I

Phase I of the study proposed to provide teachers with opportunities to observe their own classroom behaviors and to learn how these behaviors influence the classroom learning environment. In particular, the present study investigated the impact of teacher examination, discussion and behavior modeling opportunities on the reported self perceptions of their pupils. The major hypothesis of this phase was stated as follows:

Given opportunities to examine, discuss and model behaviors, teachers will manifest behaviors which result in increased positive self perceptions for the pupils in their classrooms.

Procedures

The inservice program was conducted in an urban elementary school setting in Virginia.* The elementary school population numbered approximately four hundred, with a racial balance of fifty-one percent black and forty-nine percent white. All fourteen female teachers of grades one through six, which included one teacher of an ungraded intermediate class, participated in the training program.

Regarding the teacher characteristics, three of the fourteen were black and the remaining eleven were white. Thirteen teachers held a bachelor's degree, and one had earned a normal school certificate. The majority of teachers were twenty through thirty years of age; two were approaching retirement. Their teaching experience ranged from one year (three teachers) to more than twenty years (two teachers). However, the majority had between three and four years of teaching experience.

The program was initiated at an orientation session held in the spring of 1971. The topics chosen for the six weekly training sessions, designed to provide socio-cultural understandings, were: (1) Interdependence of affective and cognitive behavior; (2) Peer interactions and group interactions; Self-perceptions and how they are learned; (3) Adult interactions with children; the effect of certain behaviors on the behavior of others; (4) The antecedents of teaching problems; effective learning climates and the locus of control; (5) Self in relation to others; systematic instruction in socialization skills; and (6) Evaluation of the training sessions.

The content of the training sessions was operationalized through teacher observation, discussion and analysis of video tapes made in the individual classrooms. All teachers volunteered for the classroom video-tapings. A split screen presentation permitted the simultaneous observation of the teacher and her pupils. After each tape had been reviewed, each teacher was provided a private critiquing session during which only the teacher's positive teaching behaviors were noted. At the conclusion of the private session, the teachers were asked to share their video tapes with their colleagues at the inservice sessions. It should be noted that none of the teachers refused to do so.

---

*This research was supported by the Consultative Resource Center for School Desegration, University of Virginia, Charlottesville, Virginia, 1971.

By providing feedback only on positive teaching behaviors, it was reasoned that teachers would increase the incidence those positive behaviors already in their repretoires and incorporate those positive behaviors demonstrated by their colleagues, (Bandura & Ross, 1965; Bandura, Blanchard & Ritter, 1970). Kounin's (1970) observational categories, "alerting," "accountability," and "format" were used in conjunction with teaching techniques recommended for the educationally disadvantaged child. Particularly stressed was not only the quality of the teacher's interactions with pupils but the number of children with whom the teacher interacted. (Dimitroff, 1969; Leacock, 1968; Rist, 1970).

In order to examine the impact of the teacher training experience on the pupil population, a Self-Perceptions Index was administered to approximately two hundred and forty pupils in grades three through six. This index was described as follows:

> Self-Perceptions Index. The items were based in part on the rationale presented in the Virginia Educational Needs Assessment (1970-71). In addition to psychologically based items, sociological and cultural measures of classroom climate were included (Rist, 1970). The pupil behaviors were classified into three areas:
>
> (A) Self to peers - the pupil's perceptions of his pupil-pupil interaction effectiveness.
>
> (B) Self to teacher - the pupil's perceptions of his pupil-teacher interaction effectiveness.
>
> (C) Self to task - the pupil's perceptions of his effectiveness in (1) study habits, and (2) school tasks.

Ten items were included in each of the three areas, for a total of thirty items.

Pre-post administrations of the Self-Perceptions Index were conducted one week previous to and one week following the training sessions to determine changes which may have occurred as a result of the training program.

Analysis and Findings

A one way analysis of variance design was used to determine any significant mean changes in the Self-Perceptions

Index which occurred between pre and post testings. The data were analyzed by grade levels three-four, five-six, and three-six (total group) for the Total Test of Self-Perceptions and the three areas: (A) Self to Peers, (B) Self to Teacher, and (C) Self to Task.

It was found that pupils in grades 3-6 showed a significant gain between the pre-test (33.9) and the post-test (35.02) means in the subtest area, Self to Peers ($F = 6.02$, $p < .05$). In addition, grade level 3-4 showed significant mean gains on the Total Test of Self Perceptions in the areas, Self to Peers and Self to Teachers. On the Total Test the mean change between the pre-test (105.1) and the post-test (110.1) was significant at the .05 level ($F = 6.83$). On the subtest area, Self to Peers, the mean change from 33.5 to 35.4 was significant ($F = 5.66$, $p < .05$). A significant mean change was also observed in the area, Self to Teacher (pre-test mean = 34.2, post-test mean = 36.5, $F = 8.68$, $p < .01$). No significant mean gains were observed for grade level 5-6 or in the subtest area, Self to Task. However, pre-test means were observed to be relatively higher in Self to Task area. For the total group the pre-test mean (Self to Task) was 37.8 as opposed to the pre-test means of 33.9 (Self to Peers), 34.2 (Self to Teacher).

PHASE II

The findings of Phase I suggested that when teachers receive positive feedback concerning their classroom behavior they are in a much better position to build positive self concepts in their children. Another dimension of effective classroom learning environments is pupil-pupil interactions as they relate to the informal classroom social structure (Cohen, 1972). For this reason, the second phase of the study investigated the impact of systematic social skill training on the affective perceptions of children of varying social and cultural backgrounds. The major hypothesis of Phase II was stated as follows:

Given opportunities to explore the dynamics of group life, discuss the consequences of differential behavior and examine alternatives to the satisfaction of their needs children will evidence a greater acceptance of themselves and their classmates.

Procedures

The program of systematic social skill training for children was conducted during the school year 1971-72 in the same setting as Phase I. The same teacher population prevailed with the exception of two teachers in grades 3-6, and three teachers in grades 1-2.

The program was designed to provide children with:

1. Classroom opportunities for children to explore the dynamics of classroom group life and learn the techniques of effective interaction with others.

2. Small group opportunities for children to discuss and learn the differential consequences of cognitive, affective, and social behaviors.

3. Individual opportunities for children to examine and adopt more productive alternatives to the satisfaction of their needs.

The specific activities were performed by two elementary school counselors, two days per week during the period from October, 1971 - April, 1972. Group guidance, group counseling, and individual counseling sessions were held with the children on such topics as: getting along with others, respecting the rights of others, how to make friends and personal responsibility.

In order to evaluate the effectiveness of the social skill training for children, the Self Perceptions Index (described above) and a Peer Acceptance Index were administered to pupils in grades 3-6 in October, 1971 and March, 1972. The Peer Acceptance Index is briefly described as follows:

Peer Acceptance Index. This instrument was designed to obtain a measure of the degree of acceptance or rejection of a pupil by his classmates. Each pupil was rated on a five-point scale by each of his classmates; a pupil's individual score was a composite of his classmate's ratings. The degree of socialization or likeability among pupils was evidenced by a classroom or group average.

In addition, the teachers rated each of their pupils on her perceptions of a child's competence based on socialization skills with peers, teachers and expected academic performance. Each pupil was also identified by race, socioeconomic status and sex.

Analysis and Findings

Table I presents a summary of the descriptive data for the affective instruments, Peer Acceptance and Self Perceptions. The data are presented for pre-test administration (baseline data) and for the post-test administration in March. The data are classified: Total, Sex, Race, Socio-economic Level and Grade Level. The classification, Total, refers to those pupils in grades 3-6 who were present for both the pre-test administration in October and the post-test administration in March.

A correlated t test was used to determine the significance of any mean changes between the pre-test and post-test means. The results of the tests of significance for the several classifications are presented in Table II.

It can be observed from Table II that the pre-post mean comparisons were significant for pupils in grades 3-6. In general, a significant mean gain was observed for the Peer Acceptance Index; however the mean loss in measured Self Perception was also significant.

Further, it can be observed that significant mean gains in Peer Acceptance were made by pupils classified in the low socio-economic group, by pupils in grade level 5-6, by girls and by black pupils. The data analysis was not generalized to a multiclassification analysis of variance design because in the implementation of the study, it was not possible to randomize or control for differential treatment effects. The counselors were requested to hold a greater number of sessions with pupils from the lower socio-economic status and grade level 5-6. However, the data suggest that the mean gain in Peer Acceptance observed for black pupils is in fact a concomitant of socio-economic level, i.e., of those pupils classified into the low-socio-economic group, 71 percent were identified as black and 29 percent as white. These figures are in contrast to the percentage breakdown in the middle socio-economic group, 24 percent black pupils and 76 percent white pupils.

Those groups which experienced a significant gain in Peer Acceptance (low-socio economic level, grade level 5-6, girls and black pupils) also experienced a significant decrease in Self Perceptions. Significant losses in the measure of Self Perceptions were also observed to a generally lesser extent for males, the middle socio-economic group, grade level 3-4 and white pupils.

In general, there was a greater congruence between post measures of Peer Acceptance and Self Perceptions than

TABLE I

MEAN TEST RESULTS OF PUPIL PERCEPTIONS BY SEX, RACE, SOCIO-ECONOMIC AND GRADE LEVELS

Test	Total		Sex		Race		Socio-Eco Level		Grade Level	
	$\bar{X}$	SD	Boys	Girls	Black	White	Low	Middle	3&4	5&6
Pre-Test										
I. Peer Acceptance	3.20	.50	3.22	3.18	3.25	3.14	3.14	3.23	3.21	3.19
II. Self-Perceptions	108.31	13.67	105.60	111.39	108.15	108.47	106.79	110.11	109.84	106.67
Post-Test										
I. Peer Acceptance	3.26	.52	3.21	3.32	3.35	3.16	3.23	3.27	3.22	3.29
II. Self-Perceptions	105.58	14.18	103.29	108.18	105.67	105.48	103.92	107.41	106.98	104.09

$\bar{X}$ = Mean
SD = Standard Deviation

TABLE II

PRE AND POST MEAN COMPARISONS OF AFFECTIVE MEASURES

Total Group - Grades 3-6

Test		t-ratio	df
I.	Peer Acceptance	1.82*	187
II.	Self Perceptions (Total)	-3.10**	187

Sex

Test		Female t-ratio	Female df	Male t-ratio	Male df
I.	Peer Acceptance	2.60**	87	- .22	99
II.	Self Perceptions (Total)	-2.63**	87	-1.83*	99

Socio-Economic Level

Test		Low t-ratio	Low df	Middle t-ratio	Middle df
I.	Peer Acceptance	2.12*	99	.83	79
II.	Self Perceptions (Total)	-2.27*	99	-2.05*	79

Grade Levels

Test		3&4 t-ratio	3&4 df	5&6 t-ratio	5&6 df
I.	Peer Acceptance	.32	96	2.56**	90
II.	Self Perceptions (Total)	-2.23*	96	-2.14*	90

Race

Test		Black t-ratio	Black df	White t-ratio	White df
I.	Peer Acceptance	2.44**	96	.26	90
II.	Self Perceptions (Total)	-1.97*	96	-2.44**	90

t-ratio* = significant beyond .05 level, one-tail test
t-ratio** = significant beyond .01 level, one-tail test
df = degrees of freedom

Note: Because of the few pupils (7) classified and tested in the upper middle socio-economic group, this group was omitted from the presentation.

was observed between the relationships between pre measures. The Pearson correlation coefficient between the Peer Acceptance and Self Perceptions on pre-test measures was r = .1746, n = 188, sig..009. The relationship between post measures increased to r = .2685, n = 188, sig. .001. Greater congruence was observed for males, middle socio-economic level, grade level 3-4, makes, and white pupils.

A multivariate analysis was run to determine the relative contribution of pupil characteristics and teacher ratings on the child's Self Perceptions (SPSS, 1970). The independent variables were defined as (1) grade, (2) sex, (3) intelligence, (4) race, (5) socio-economic status, (6) Peer Acceptance, (7) Teacher Ratings. The criterion variable was defined as the total score of Self Perceptions. The significant contributors to Self Perceptions observed were:

Independent Variables	Multiple R	Beta	df	F
Teacher Rating	.44656	.36248	1,126	31.38
Peer Acceptance	.45957	.12609	2,125	16.73
(Grade, Sex, I.Q.)	.46871	Significant contributors		

The major contributors to a child's reported Self Perception were Teacher Rating and Peer Acceptance. The remaining three variables contributed to a lesser extent in descending order, grade, sex and I.Q.

The validity of the Self Perceptions test was further examined by a factor analysis (SPSS, 1970). A varimax rotated factor matrix, after rotation with Kaiser normalization, identified three factors: Self to Self, Self to Others, and Self to Culture. The relationship of the seven independent variables to each of the three factors were examined by a multivariate analysis. The major contribution to each of the three dependent variables, Self to Others, Self to Culture and Self to Self are presented below. The remaining significant contributions are listed in descending order.

A. Dependent variable: Self to Others

Independent variable	Multiple R
Teacher Rating	.24788
(Socio-economic, Peer Acceptance, I.Q., Race, Grade)	.29479

B. Dependent variable: Self to Culture

Peer Acceptance	.16207
(Sex, I.Q., Teacher Rating, Socio-economic)	.22140

C. Dependent variable: Self to Self

Grade	.18300
(Peer Acceptance, Sex, Race, I.Q., Socio-economic, Teacher Rating)	.25171

The teacher Rating of a child was found to be a significant contributor to the child's perceptions, Self to Others. Peer Acceptance was observed to relate significantly to the child's perceptions, Self to Culture. These relationships suggest that teacher perceptions and peer acceptance may be critical to modifying Self Perceptions in relationship to others and to culture. Perceptions of Self may be more stable, related to grade.

SUMMARY

In general, the findings of this study indicate that the social structure of elementary school classrooms can be altered by systematic intervention attempts which provide opportunities for the participants to learn more about themselves and others. In particular, it was found that when teachers examine the antecedents of behavior from a sociocultural perspective, they will alter their own behaviors to the extent that the children with whom they interact will perceive themselves more positively. In addition, when children are provided similar opportunities they will perceive each other more positively.

The major thesis of Phase I of the study held that if teachers are given opportunities to examine, discuss and model certain behaviors that have been judged to be effective

classroom behaviors, then the children they teach will regard themselves more positively. The findings of the study upheld this proposition.

Children were found to perceive themselves as more adequate in their relations with their classmates and with their teachers after their teachers had experienced the activities of the inservice training. The pupil-pupil and teacher-pupil interaction focus of the teacher training sessions would seem to have influenced the teacher's style of interactions. It was in these two areas that pupils made significant gains. The gains were more pronounced for grade level 3-4 than for grade level 5-6. Perhaps the difference in significant gains between the two grade levels is attributable to younger pupils being more easily influenced than older children.

It should be noted these increased positive perceptions by the children occurred despite the fact that there was no similar change observed for the teachers' expressed perceptions of their children. But more importantly, perhaps, the children were observed to perceive themselves more positively, even though the children themselves were not directly involved in any program of training.

It was for this reason that Phase II of the study was undertaken. If significant positive changes could occur for children in the absence of any direct intervention, it should follow that greater changes could be observed in the presence of direct treatments. Therefore, the major hypothesis for this phase of the study held that the treatments defined for the children would not only increase the degree of likeability among the children in the classroom, but that the individual child's feelings of personal worth would be influenced positively. The findings were mixed; increased peer acceptance was found to be accompanied by decreased self acceptance.

In general, those groups of children who made greater gains in peer acceptance were observed to make greater losses in reported self perceptions. One explanation of this circumstance could be related to the increased congruence observed between the child's acceptance of self and his acceptance by his classmates at the conclusion of the study. The discrepancy between the child's perceptions of himself and his classmates' perceptions of him was relatively greater on the pre-test than it was on the post-test.

This evidence could indicate that the more one learns about others, the less anxious one is to attribute positive attributes to one's self. Those studies which have examined the accuracy of self concept have observed a decrease in the

discrepancy between an ideal self report and a real self report (Cohen, 1965; Katz, et al., 1956; McClintock, 1958; Perkins, 1958). The conclusions suggested that changes in the understandings of the behavior of others is accompanied by changes in the understandings of self.

The findings of this study seem congruent with such propositions. The primary emphasis of the counselor's activities in Phase II was to provide opportunities for children to understand their own behavior in relation to others. A concomitant of such learnings could be the development of a different system of values, and thereby a different self report. If, in fact, this relationship does exist, then the implementation of systematic social skill training programs for elementary school children seems implied.

An examination of the findings concerned with the relative contribution of differing pupil characteristics and teacher ratings on the child's self perception indicated Teacher Ratings of pupils and Peer Acceptance scores as the greatest contributors. Therefore, in terms of the school setting, it is the child's relevant others; i.e., his teacher and his classmates, and not his grade, sex, I.Q., or socio-economic status, that make the greatest relative contribution to a child's Self Perceptions of his effectiveness with others and with the culture.

DISCUSSION

The activities of the teacher inservice training sessions were designed to alter both the formal and informal classroom social structure. There was a determined effort to intervene against the low visibility which is characteristic of the self-contained elementary school classroom and to provide the teachers with increased opportunities for feedback regarding the effectiveness of their classroom interactions. The classroom video tapings and the private and open group critiquing sessions with teachers seemed to have accomplished these objectives.

The teachers' apprehension concerning an invasion of their privacy was lessened after their first taping and critiquing experiences. They were then willing to be taped without advance notice and they also requested that their tapes not only be shared with their peers but with administrators, supervisors, and parents. It might be inferred from these observations that the teachers' sense of personal competence was increased.

In addition, the video tape analyses indicated that behavior modeling may be a successful technique for modifying teacher-pupil interaction. When certain teaching behaviors were identified as effective, the teachers increased the incidence of these behaviors in their subsequent video tapings.

As mentioned earlier, those teaching behaviors which were identified as effective were those related to classroom management and teaching techniques recommended for the socio-culturally different. The increased incidence of the positively sanctioned teaching behaviors seems to have altered the pattern of relationships among the participants and thereby the social climate of the classroom.

The climate of feeling among the children was observed to increase in a positive direction. The number of children who were willing to assign positive attributes to each other was greater at the conclusion of the study than at the beginning. Thus, it would seem that a child's classroom status can be effectively modified by intervention attempts which involve his peer group.

The multiplicity of variables and their interdependence may presently preclude definitive statements concerning teacher-pupil interactions as they relate to effective learning environments. But it does seem reasonable to suggest that an individual's adjustment to a social system requires an understanding of that social system. In the presence of such understandings changes may be anticipated not only for the individual, but for the social system itself.

In conclusion, the findings of this study recommend that successful attempts to alter the social climate of elementary school classrooms accrue from considerations of the interdependence of the interactions of the participants.

REFERENCES

Bandura, Albert, Ross, Dorothea, & Ross, Sheila A. "Imitation of film-mediated aggressive models." Journal of Abnormal and Social Psychology, 1965, 66, 1, 3-11.

Bandura, Albert, Blanchard, Edward B., & Ritter, Brunhilde. "Relative efficacy of desensitization and modeling approaches for inducing behavioral, affective, and attitudinal changes." Journal of Personality and Social Psychology, 1970, 13, 3, 173-199.

Brown, B. S. "Stress." Today's Education, September, 1972, Vol. 61, No. 6, 48-50.

Cohen, A. R. "Experimental effects of ego-defense preference in interpersonal relations." Journal of Abnormal Psychology, 1965. LII:19-29.

Cohen, E. G. "Sociology and the classroom: Setting the Conditions for Teacher-Student Interaction." Review of Educational Research, Fall 1972, Vol. 42, No. 4, 441-452.

Dimitroff, Lillian. "Concept of self and teaching culturally different people." In B. Feather and W. S. Olson (Ed.), Children, Psychology and the Schools. Glenview, Illinois: Scott Foresman and Company, 1969.

Henry, Jules. "Attitude organization in elementary school classrooms." The American Journal of Orthopsychiatry, XXVII, January, 1957, 117-133.

Katz, D. Sarnoff, I. and McClintock, S. "Ego-Defense and attitude change." Human Relations, 1956, IX:27-46.

Kounin, Jacob S. Discipline and group management in classrooms. New York: Holt, Rinehart and Winston, Inc., 1970.

Leacock, Eleanor. "The concept of culture and its significance for school counselors." Personnel and Guidance Journal, May, 1968, 46, 9, 844-851.

McClintock, C. G. "Personality syndromes and attitude change." Journal of Personnel, 1958, XXVI:479-493.

Miles, M. "Some properties of schools as social systems." In G. Watson (Ed.), Change in School Systems. Washington, D.C.: National Training Laboratories, NEA, 1967, p. 9.

Mitchell, James V., Jr. "Education's challenge to psychology: the prediction of behavior from person-environment interactions." In Gene V. Glass (Ed.), Review of Educational Research, 1969, 39, 5, 695-721.

Perkins, Hugh V. "Factors influencing change in children's self-concepts," Child Development, XXIX, June, 1958, p. 226.

Rist, Ray C. "Student social class and teacher expectations: The self-fulfilling prophecy in ghetto education." Harvard Educational Review, August, 1970, 40, 3.

Rosenthal, Robert and Jacobson, Lenore. Pygmalion in the Classroom; Teacher Expectation and Pupil's Intellectual Development, New York, Holt, Rinehart and Winston, Inc., 1968.

Spindler, G. D. "The role of the school administrator." In G. C. Spindler (Ed.), Education and Culture, New York: Holt, Rinehart and Winston, Inc., 1963.

Statistical Package for the Social Sciences. New York: McGraw-Hill, 1970.

Virginia Educational Needs Assessment Study, A Study conducted by the Bureau of Educational Research, University of Virginia and the Virginia State Department of Education under Provisions of Title III, Public Law 89-110, 1970.